

Pandemic H1N1 Influenza Interactive Exercise



Preparedness & Response
for CERTs

Public Health Department
Santa Clara Valley Health & Hospital System



Objectives

By the end of this exercise, you should be able to:

- Describe your individual and/or family pandemic influenza preparedness plan
- Identify two ways you can protect yourself from influenza
- Identify three ways you may be able to assist in pandemic as a CERT

Go over the objectives

Explain the rules of the exercise, that is to have fun, learn and determine where gaps may exist and discuss ways to address the gaps if possible.

Explain that the first three slides are showing the current status of the pandemic we are in, as of Summer 2009

The PPT shows where the actual scenario begins

Current Situation

(as of fall 2009)

The actual scenario will begin shortly. The next few slides are to give background to the scenario.

Pandemic H1N1 Influenza History

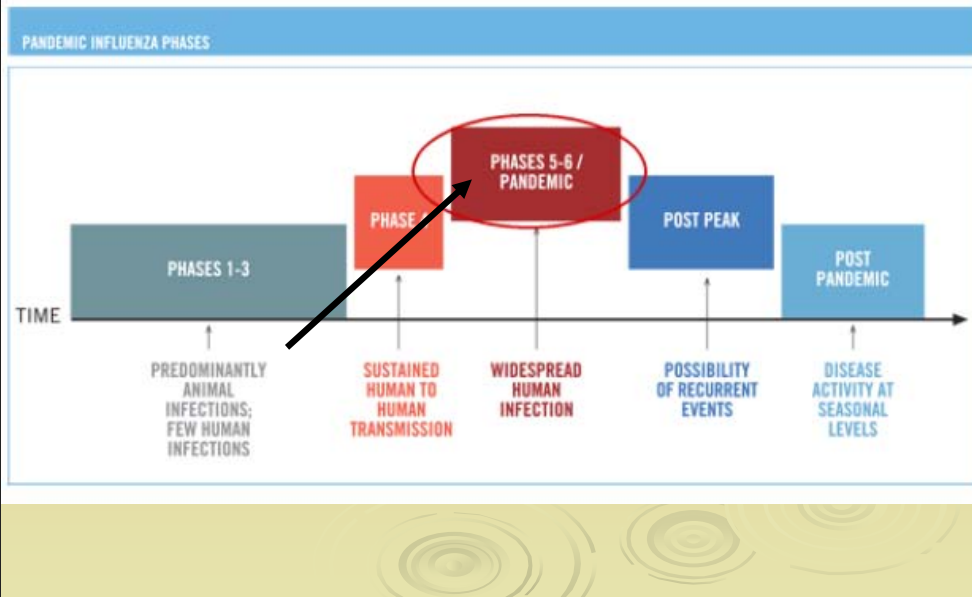
- The H1N1 virus had a swine origin that first caused illness in Mexico and the United States in March and April, 2009.
- In approximately six (6) weeks, the pandemic H1N1 influenza virus had spread around the world.
- On June 11th, 2009, WHO (World Health Organization), Director General, Margaret Chan declared a Phase 6 Pandemic due to sustained worldwide human-to-human transmission of the A/H1N1 flu virus.



The United States is the country with the most confirmed cases of H1N1

WHO Pandemic Flu Phases

WHO | Current WHO phase of pandemic alert



Currently as of the fall 2009, the pandemic H1N1 flu is considered to be mild to moderate. Health officials are concerned the virus might mutate and become more severe and will spread to more people in the winter which are times of the year that we are in closer contact with one another since we spend more time indoors.

Trainer: Update this slide as needed

Pandemic Influenza Cases are on the Rise

Cases in the US continue to rise and the CDC estimates that up to 1 million residents have the new flu virus known as: **Pandemic H1N1 2009 virus**, (early on referred to as “Swine Flu”)



This CDC estimate of US cases was as of the summer 2009.

Scenario Begins

Please mention that the following slides are “make believe” and this is where the scenario begins.

Local Outbreak

A photographer returning from a photo assignment in Nigeria attended a banquet last night with 200 of his colleagues despite feeling feverish and tired



Everyone in the room could have come into contact with his illness and brought it home to their loved ones and coworkers. This is how pandemics spread rapidly.

Photographer is hospitalized

- He is evaluated in the Emergency Dept (ED)
- Chest x-ray reveals pneumonia
- A breathing tube is inserted (intubated) and placed on a ventilator due to severe respiratory distress
- Just as he is moved to the Intensive Care Unit (ICU), his wife begins to complain of similar symptoms and registers as a patient in the ED

Since the photographer doesn't have immunity to the new virus, his body defenses are rapidly overwhelmed and his condition deteriorates. Meanwhile, his wife becomes ill and was most likely infected by her husband.

Wife is now in ICU

- His wife's respiratory status severely deteriorates
- She is urgently transferred to the ICU



She experiences the same outcome as her husband.

Code blue!

- The photographer suffers a cardiac arrest and cannot be revived
- Meanwhile, his wife struggles to stay alive



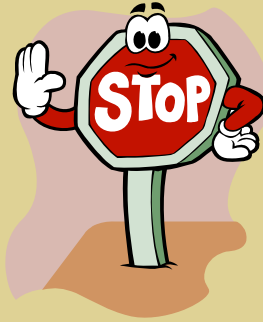
This can happen to individuals who may have underlying health conditions.

Doctors suspect patient had the Pandemic H1N1 Influenza Virus



- ICU physician concerned based on rapid onset of illness
- Doctor swabs the patient and sends sample to the laboratory
- Orders an infectious disease (ID) consult

- The ID specialist interviews the couple's family
- Learns the husband was assigned to rural Nigeria to photograph migratory birds
- Orders specimen collection and a battery of tests



Break for discussion

Personal preparedness

1. What steps have you taken to protect you and your family for pandemic influenza or other disasters/emergencies? Examples:
 - Prepared emergency pan flu home kit
 - Understand how to care for a sick family member at home
 - Understand the signs and symptoms of the flu
2. Have you established a plan for childcare if schools are closed for:
 - 4 weeks (moderate) to 12 weeks? (severe pandemic)

Read each question slowly and clearly. This set of questions is designed to serve as a warm up or ice breaker, in addition to allowing participants to discuss preparedness strategies.

Allow time for groups to discuss and report back their answers. You may only have time to allow 2 groups to report back if your training is large and you have limited time.

We suggest allowing 10-15 minutes for discussion and recording answer (per session not question), and 10 minutes per group to report back.

Related cases?

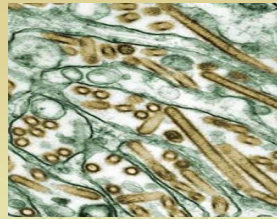


- Four more patients arrive at Valley Medical Center with severe flu-like illness
- Three of the new patients were on the same flight as the photographer and live in the surrounding area

Since the same air is circulated repeatedly on airplane flights, respiratory diseases are easily spread. In the case of the infected photographer, he may have infected all the passengers not just the ones sitting close to him.

Newly mutated, more severe flu strain is confirmed

- Photographer is found to have a newly mutated form of the H1N1 flu virus that is more severe and deadly
- Investigations confirm he contracted the virus during his trip to Nigeria. Scientists believe the milder (swine flu origin) virus reassorted and the patient is now sick with this newer more severe strain.



- State reference lab reports to public health that sample is positive for a mutated form of the H1N1 virus and is suspected to be extremely virulent (stronger than the previous strain)
- Specimen sent to CDC for confirmatory testing

Breaking news!

KCTV 13 news reports:



Possible new severe pandemic influenza case

Suspected case was on a recent international flight and attended a large public gathering shortly after returning

Local public health response to the new severe flu strain

A press conference is called by Health Officer, Dr. Gonzales to announce:

- local schools will be closed effective immediately
- large public gatherings have been cancelled
- all local agencies including hospitals are asked to implement their Pandemic Influenza Response Plans

•A Pan Flu plan should be an annex to any organization's Emergency Operation Plan. There are examples of a pandemic flu plan contingency plans available on the internet

•These actions are in response to the new, more severe pandemic flu strain that is thought to be more deadly. With social distancing orders in place, health officials hope to slow the spread of the new deadly virus.

Public panic!!!

- Cities and community-based agencies begin receiving concerned calls from the community
 - They are worried about getting ill and are asking how they can avoid the pandemic virus
 - Some are worried about how they are going to continue to receive services
 - Some residents/clients are afraid to leave their homes

With social distancing in place many community members feel scared and nervous about how they will continue receiving the services they need.

The illness spreads

- People who also attended the awards banquet begin to seek hospital care
- In addition to the photographer, two more patients with suspected severe pandemic influenza have died



Hospitals are becoming overburdened with patients

Hospitals Reach Surge Capacity

Overwhelmed hospitals triage patients as they arrive, admitting only the most ill. The vast majority must return home to be cared for by family members



Download your copy at: www.sccphd.org/panflu

- Hospitals report shortage of ventilators, ED beds and ICU beds
- Most people will be cared for at home since the hospitals can no longer admit patients unless they require advanced medical care such as ventilators.
- The homecare guide is an excellent resource for providing care for someone at home. It is included in the CERT Training CD under "handouts"

Alternate Care Site (ACS) Open

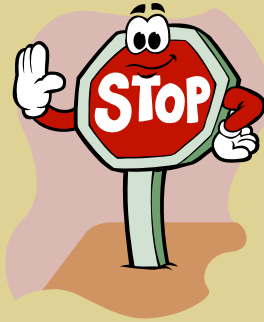
- Health Officer orders the first ACS to open. The ACS will receive patients that are too sick to be at home but not sick enough to be admitted to the hospital.



Note: Surge capacity response varies by state

Health agencies such as public health departments should have plans in place for treating patients outside of a hospital during a disaster when hospitals become overwhelmed.

As a CERT it is good to be familiar with your health department's plan for dealing with "surge capacity". Your team should discuss how your CERT can assist with ACS operations (if they are in your area). You may be asked to assist police with controlling traffic, or transporting supplies, etc. CERTs should not be requested to assist with medical care unless they are licensed health care professionals and have received training to do so.



Break for discussion

CERT Response

1. Do you know where your vulnerable neighbors reside? Has your neighborhood planned how to assist them in an emergency?
2. Know where to receive accurate information about pan flu
3. How can your CERT disseminate critical information in your neighborhood or city during a pandemic?
4. Does your CERT coordinate with local health authorities/government during emergency response?

Read questions slowly. Allow 10 -15 minutes for discussion and recording answers. Allow 10 minutes to report back for each group, or if you are limited in time, select two groups to report back and allow others to add anything they would like to if it was different or interesting for the rest of the audience to hear.

Breakdown of infrastructure

- Two local pharmacies have experienced burglaries, presumably by persons looking for Tamiflu®
- Law enforcement unable to respond immediately because of unprecedented absenteeism among officers



Tamiflu is an “antiviral” and may be prescribed by a doctor to help lessen the symptoms of the H1N1 virus. It should only be given to those who are sick.

Absenteeism Crisis

- Some healthcare workers are afraid to come into work
- Essential services such as trash collection, utilities repair and public safety agencies are reporting up to 30% absenteeism
- Many businesses encourage workers to telecommute or work flexible hours

Essential services will be under strain and will not operate as usual. It may take 2-3 weeks to get your garbage picked up, or it may take an hour for 911 to respond if at all. If your power is disrupted, it may take several days before it can be restored. Local supermarkets may also open only on certain days and will struggle to keep items on their shelves. These are just a few examples of what can happen when essential services start to break down.

Mass fatality concerns

- Medical Examiner/Coroners are overwhelmed
- Mortuaries are at capacity



Some mortuaries refuse to accept bodies of people who died of influenza

Funeral homes overwhelmed

Mass public burials replace individual ceremonies

Emerging economic consequences

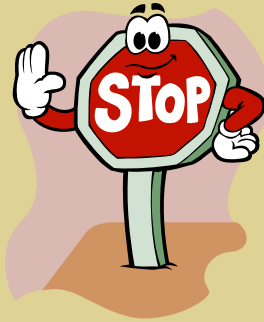
- Local businesses are suffering from lack of workers and customers



Forecasts

- Forecasters predict that epidemic will continue for several more months and result in over 1.8 million deaths nationwide
- Estimated nationwide economic impact will exceed \$100 billion

Pandemics can last up to 18-24 months and come in waves. The impact can be devastating to the economy unless actions are taken quickly to mitigate the problem.



Break for discussion

Long Term Planning & Response

1. Does your employer have a business or service continuity plan for staff absences unique to a pandemic?
 - Time off/ leave pay to care for family, or when employee is home in isolation or quarantine?
 - Or return to work policies specific to a pandemic?
2. Are there any CERT related supplies that you could potentially stockpile to prepare for a pandemic?

End of Scenario Thank you!!



Thank you to Advanced Practice Center for providing the toolkit titled, *Master the Disaster*, which assisted in the content development for this exercise. For more information, visit www.naccho.org/APC to request the *Master the Disaster Toolkit*.

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